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TITLE: MICROCOMPUTER

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INVENTOR-INFORMATION:
NAME
AKIYOSHI, KUNIHIRO

ASSIGNEE-INFORMATION:
NAME   COUNTRY
RICOH CO LTD   N/A

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ABSTRACT:

    PURPOSE: To perform fast processing for task switching and the
saving and
restoration of a register, etc., by providing a switching control
means which
performs the fast processing for the task switching between a central
processing unit and an operating system.

    CONSTITUTION: A task part executes the task switching when the
occurrence of
a system call to perform the task switching at a time when software
interruption is performed is recognized, and a switching control part
1 applies
wait to a CPU. The CPU saves the value of a stack pointer 8 to a
stack pointer
saving register 6, and copies the value of a register file address 5
on the
stack pointer 8. The value of the register 8 is copied on the
preservation
area of a register file 7 indicated by the pointer 8, and processing
of system

call is executed. Thence, a bit with the highest priority in a ready task
register 2 is set on a run task register 3, and the address of the register
file 7 is set on the address 5. After the processing is completed, a restoration instruction is issued to the CPU.